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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,410	12/27/2005	Ian Saunders	2004-1038	4849
466 7590 05/07/2008 YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			EXAMINER HANSEN, JONATHAN M.	
			ART UNIT 2886	PAPER NUMBER
			MAIL DATE 05/07/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,410

Applicant(s)

SAUNDERS ET AL.

Examiner

JONATHAN M. HANSEN

Art Unit

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25, 26, 28-38 and 40-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25, 26 and 28-36 is/are allowed.
- 6) ☒ Claim(s) 37, 38, 40 and 42 is/are rejected.
- 7) ☒ Claim(s) 41 and 43-46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-949)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, filed 02/15/2008, with respect to claims 25, 26 and 28-36 have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

Claim Objections

Claim 37 recites the limitation "a beam splitting member for splitting the transmitted or reflected light beam". There is insufficient antecedent basis for this limitation in the claim. The claim is understood by the Examiner, and is suggested to be amended, to read --a beam splitting member for splitting a transmitted or reflected light beam from the measuring area--.

It is also suggested that the limitation "a light source for providing a light beam for irradiating a measuring area" be amended to recite the limitation of claim 25, --a measuring area of the object that changes under influence of the material addition or removal--.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims **37, 38, 40 and 42** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims **13-17** of **U.S. Patent No. 7,121,922 to Van Brug**. Although the conflicting claims are not identical, they are not patentably distinct from each other because, as shown in the table below, the claims correspond accordingly.

Instant Claim	Patented Claim
37	13, 17, 14
38	13
40	15
42	16

In regards to claim **37** of the instant application, Van Brug discloses a machining apparatus (applicant's material adding or removing apparatus) comprising:

a polishing tool (applicant's material-adding or material-removing system) (claim 17);

and

a measuring tool (applicant's measurement system) (claim 13):

a light source for providing a light beam for irradiating a measuring area;

a holder for positioning a workpiece relative to the light source;
a beam splitting member for splitting the transmitted or reflected beam;
a phase influencing member for setting a phase difference between the split beams;
a beam combining member for combining the split beams;
an observation member for observing a fringe pattern representing a differential phase between the split beams; and
a processor for calculating an optical path length difference from the differential phase and for relating the optical path length difference to the contour variation of the object.

Van Brug further discloses wherein the phase influencing member comprises an optical phase filter for generating a predetermined phase plane (claim 14).

However, he fails to explicitly disclose said phase influencing member is in only one of said split beams.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to place said phase influencing member in only one of said split beams for the advantage of maintaining a simplified system by using only one phase influencing member.

In regards to claim 38 of the instant application, Van Brug discloses a holder for positioning a workpiece relative to the light source (claim 13).

Further, while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Limitations following “configured to,” “adapted for,” “designed to,” “can

be,” and “capable of,” or are statements of intended use are not positive limitations and thus are not given patentable weight. See MPEP 2111.04 and 2114.

Allowable Subject Matter

Claims **41 and 43-46** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim **37** is rejected under the double patenting rejection above, however the prior art of record, taken alone or in combination, fails to disclose or render obvious a beam splitting member for splitting a transmitted or reflected beam from the measuring area; a phase influencing member for setting a phase difference between the split beams; and a beam combining member for combining the split beams, in combination with the rest of the limitations of the claim. Claim **37** would therefore be in condition for allowance once the issues discussed above are resolved.

Claims **25, 26 and 28-36** are allowed.

As to claim **25**, the prior art of record, taken alone or in combination, fails to disclose or render obvious splitting the transmitted or reflected beam; varying the phase of the split beams relative to each other, such that the differential phase is kept within the range of 2π ; and combining the split beams with each other and observing a fringe pattern which represents a

differential phase between the split beams, in combination with the rest of the limitations of the claim. Claims 26 and 28-36 are allowed due to their dependency from claim 25.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN M. HANSEN whose telephone number is (571)270-1736. The examiner can normally be reached on Monday through Friday 9:30AM to 6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on 571-272-2287. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMH 04/29/2008
/TARIFUR R CHOWDHURY/
Supervisory Patent Examiner, Art Unit 2886